

BLANK PAGE



Indian Standard

SPECIFICATION FOR PADLOCKS, BICYCLE

(First Revision)

- 1. Scope Covers dimensional and other requirements of bicycle padlocks.
- 2. Dimensions Shall conform to Table 1 read with Fig. 1 or 2 or 3.

TABLE 1 DIMENSIONS OF PADLOCK, BICYCLE All dimensions in millimetres.							
	Thickness of				Dia		Gap
Metal Casing, Min	Fork Clip, <i>Min</i>	Key. Min	Locking Bar Lever, <i>Min</i>	Fixing Cap, Min	Locking Bar, Min	A	В
0.70	0.80	2.0	2.0	1.0	7 ·5	92 ·5	50

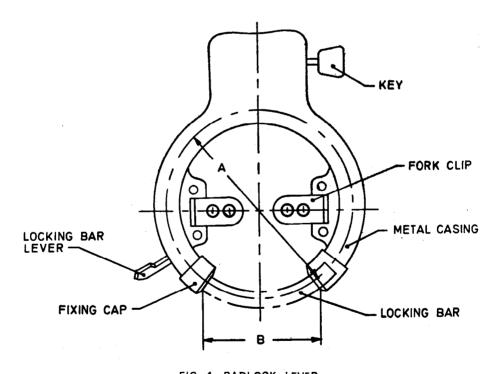


FIG 1 PADLOCK, LEVER

Adopted 23 October 1987

© March 1988, BIS

Gr 2

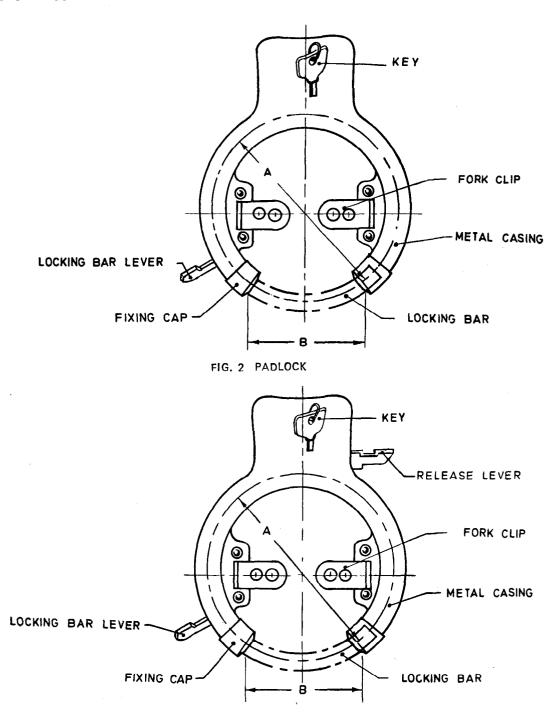


FIG. 3 PADLOCK WITH RELEASE LEVER

2.1 Tolerances — The tolerance, wherever not specified, shall be applicable as per IS: 2102 (Part 1)-1980 'General tolerances for dimensions and form and position: Part 1 General tolerances for linear and angular dimensions (second revision)', and the class of deviation shall be medium.

3. Material

- 3.1 Metal Casing Cold rolled carbon steel sheet [see IS: 513-1986 'Specification for cold rolled low carbon steel sheets and strips (third revision)'].
- 3.2 Locking Bar Steel bars (see IS: 7283-1974 'Specification for hot rolled bars for production of bright bars').

- 3.3 Levers Brass [see IS: 410-1977 'Specification for cold rolled brass sheet, strip and foil (third revision)'].
- **3.4** Fork Clip Cold rolled carbon steel sheets (see IS: 513-1986), or galvanized steel sheets [see IS: 277-1985 'Specification for galvanized steel sheets (plain and corrugated) (fourth revision) '].
- 3.5 Key Steel Bars (see IS: 7283-1974), or steel sheet (see IS: 513-1986).
- **3.6** Release Spring Spring wire [see IS: 4454 (Fart 1)-1981 'Specification for steel wires for cold formed springs: Part 1 Patented and cold drawn steel wires unalloyed (second revision)'].
- 3.7 Locking Bar Lever and Fixing Cap Cold rolled carbon steel sheet (see IS: 513-1986).
- 3.8 Rivet Mild steel (see IS: 2155-1982 'Specification for cold forged solid steel rivets for hot closing (6 to 16 mm diameter) (first revision)'], or aluminium [see IS: 740-1977 'Specification for wrought aluminium and aluminium alloy rivet stock for general engineering purposes (second revision)'].
- 4. Requirements All components of the locks and keys shall be finished smooth to minimize frictional resistance in their working.
- 4.1 The locks shall have a minimum of 4 levers.
- 4.2 The locks shall be made so as to have non-interchangeable keys in a batch consisting of a minimum of 100 locks.
- **4.3** The locking bar shall be nickel-chromium plated and shall conform to Service Grade No. 2 of IS: 1068-1985 'Specification for electropteted coatings of nickel [plus chromium and copper plus nickel plus chromium on iron and steel (second revision)'.
- **4.4** The metal casing shall be painted by enamel paint. The enamelled parts shall be free from wrinkles, blisters, uneven drips, scratch marks and other surface defects.

5. Tests

- **5.1** A solid steal ball, measuring 13 mm in diameter, shall be dropped from a height of 1.5 metres on any painted portion of the lock. The paint at the place where the steel ball strikes the lock shall withstand the impact without showing any sign of tear or peeling off.
- 5.2 The locks shall be kept dipped for an hour in a 5 percent common salt solution at the temperature specified below:
 - a) Black enamel paint 80°C, and
 - b) Other enamel paint 60°C.

The paint shall not soften, peel off or show any change in colour.

- 5.3 The locks shall be subjected to continuous 1 000 locking and unlocking operations and at the end of test, the locks shall not show any sign of damage and shall function properly.
- **6.** Sampling Unless otherwise agreed to between the purchaser and the supplier, the scale of sampling and criteria for conformity shall be as given in Appendix A.
- 7. Marking Shall be marked with the manufacturer's name, initials or recognized trade-mark and the number of levers.
- 7.1 Standard Marking Details available with the Bureau of Indian Standards.
- 8. Packing As agreed to between the purchaser and the supplier.

APPENDIX A

(Clause 6)

SAMPLING OF PADLOCKS, BICYCLE

A-1. Lot — In any consignment, all padlocks of same shape and dimensions, manufactured out of the same material, shall be grouped together to constitute a lot. Each lot shall be tested for conformity to the requirements of the specification.

A-2. The number of padiocks to be selected from each lot shall be in accordance with col 1 and 2 of Table 2. These samples shall be selected from the lot at random and in order to ensure the randomness of selection, procedure given in IS; 4905-1968 'Methods for random sampling' may be followed. Each of the padlocks in the sample shall be examined for shape and dimensions, requirements and tests. Any padlock which fails to meet one or more of the requirements mentioned above shall be termed 'defective'. There shall be no defective in the sample if the lot is to be accepted under this clause.

TABLE 2 SCALE OF SAMPLING AND CRITERIA FOR CONFORMITY					
	Lot Size	Sample Size			
	(1)	(2)			
	Up to 25	3			
	26 to 100	5			
	101 to 150	8			
	151 to 500	13			
•	501 and above	20			

EXPLANATORY NOTE

This standard was first published in 1972 which covered rim lock, padlock and wire lock. In this revision, the rim lock and wire lock have been deleted because they are no more in use. Keeping in view the latest manufacturing techniques, the material clauses and dimensions have been modified accordingly. A clause on sampling has been added.